AMENDMENTS TO THE SPECIFICATION

Please replace the first paragraph on page 5 with the following amended paragraph:

The sequence controller according to the present invention is a sequence controller that has one controller and a plurality of controlled devices connected in series via different routes from those used for data transmission, and provides an identification code to the ~~devices to be controlled~~ controlled devices, and the controller includes a first transmitting unit that outputs a first identification code provision start signal to all the controlled devices to simultaneously notify that provision of the identification code is started; and a second transmitting unit that outputs a second identification code provision start signal to notify that provision of the identification code is started and an identification code provision end signal to notify that the provision of the identification code ends to a controlled device adjacently connected to the self device, and each controlled device includes ~~an identification code provision signal detecting unit~~ an identification code provision timing detecting unit that detects the first and the second identification code provision start signals and the identification code provision end signal; an identification code providing unit that provides the identification code based on a header identification code after ~~the identification code provision signal detecting unit~~ the identification code provision timing detecting unit detects the first and the second identification code provision start signals; and a third transmitting unit that notifies the second identification code provision start signal and the identification code provision end signal to a latter-stage controlled device.

Please replace the last paragraph on page 7 bridging page 8 with the following amended paragraph:

The timing generator 120 generates identification code provision signals (an identification code provision start signal and an identification code provision end signal) for controlling a timing of providing identification codes to the controlled devices 21 to 2n respectively. The timing generator 120 outputs an identification code provision start signal to the transmitter ~~101~~ 100, the clock 110, and the delay unit 130 via a transmission route 121. The timing generator 120 also receives an ~~identification code provision end notice~~ an identification code provision end signal to indicate a lapse of an identification code provision time from the

clock 110 via a transmission route 111, and outputs the identification code provision end signal to the delay unit 130 via the transmission route 121.

Please replace the first paragraph on page 8 with the following amended paragraph:

The transmitter 100 receives the identification code provision start signal from ~~the identification code provision timing generator 120~~ the timing generator 120 via the transmission route 121, and transmits the identification code provision start signal to the controlled devices 21 to 2n via a communication route 101. Specifically, a transmission system is determined in advance such that a delay in data transmission between units is set within an error span, and modulation and demodulation are carried out regularly at a constant timing. The transmitter 100 generates a frame having a code that enables each receiver 200 of the controlled devices 21 to 2n to recognize the frame as a certain inherent frame, and transmits a first identification code provision start signal as a part of the data to be transmitted.

Please replace the first full paragraph on page 10 with the following amended paragraph:

The clock 110 measures time required to provide an identification code to the controlled devices 21 to 2n. Specifically, when an identification code provision start signal is input to the clock 110 from the timing generator 120 via the transmission route 121, the clock 110 starts measuring time. After the lapse of time required to provide an identification code to the controlled devices 21 to 2n, the clock 110 outputs ~~an identification code provision end~~ the identification code provision end signal to the timing generator 120 to notify about the lapse of the identification code provision time via the transmission route 111.

Please replace the first full paragraph on page 12 with the following amended paragraph:

When the start timing obtaining signal is input via the transmission route 201, the clock 210 initializes a count value, and starts counting up from zero. The clock 210 outputs a count value 211 ~~obtained from the identification code provision start signal~~ counted after the input of the identification code provision start signal, to the ID provider 250. An upper limit value of count up by the clock 210 is equal to a value of the identification code provided by the sequence

controller. When a count value exceeds the upper limit value, the clock 110 outputs excess information indicating the overflow to the level detector 240.

Please replace the first full paragraph on page 14 with the following amended paragraph:

The delay unit 230 outputs the identification code provision state 2 timing 242 which is delayed corresponding to the value of the identification code to be provided to the self device in the unit of the count up timing 212, to an identification code provision timing output 231. The delayed identification code provision state 2 timing 242 is transmitted to both the latter-stage controlled device and the ID provider 250 (the signal to be transmitted to the latter-stage controlled device becomes the second identification code provision start signal to the latter-stage controlled device). When the end of the provision of the identification code is notified at the identification code provision state 1 timing 241 from ~~a level detecting circuit 240~~ the level detector 240, the delay unit 230 immediately interrupts the delay processing of the identification code provision state 2 timing 242, and immediately outputs ~~the end of provision of the identification code~~ the identification code provision end signal to the identification code provision timing output 231.

Please replace the first full paragraph on page 18 with the following amended paragraph:

The flip-flop 233 as a half cycle delay circuit delays the output from the delay circuit 232 by a half cycle of the count up timing 212, and outputs ~~an identification code provision timing 231~~ the identification code provision timing output 231 to both a LOAD terminal of a register 252 and a latter-stage controlled device. ~~The identification code provision timing 231~~ The identification code provision timing output 231 becomes the timing of providing the identification code of the self device and the second identification code provision start signal of the latter-stage controlled device.

Please replace the third full paragraph on page 19 with the following amended paragraph:

The transmitter 100 generates a frame including a first identification code provision start signal, and transmits the generated frame as a part of data for data transfer, to the communication route 101. The delay unit 130 adjusts the timing of the identification code provision start signal, and outputs a second identification code provision start signal to the adjacent controlled device 21. The second identification code provision start signal is input to the level detector 240 of the controlled device 21 via ~~the transmission route 243~~ the identification code provision timing input 243 of the controlled device 21.

Please replace the third full paragraph on page 20 with following amended paragraph:

The level detector 240 of the controlled device 21 generates the identification code provision state 2 timing 242 at the count up timing 212 immediately after the start timing obtaining signal is input and also ~~the second identification code provision start~~ the second identification code provision start signal is input. Specifically, after the count value 211 of the clock 210 of the controlled device 21 is counted up, the level detector 240 generates the identification code provision state 2 timing 242 by delaying the timing by a half cycle of the count up interval. The level detector 240 of the controlled device 21 outputs the identification code provision state 2 timing 242 to the delay unit 230 and the ID provider 250 of the controlled device 21.

Please replace the first paragraph on page 21 with the following amended paragraph:

Each of the controlled devices 22 to 2n is not yet input with ~~the second identification code provision start~~ the second identification code provision start signal to the self controlled device. Therefore, the level detector 240 of each of the controlled devices 22 to 2n does not generate ~~the identification code provision state 2 timing 212~~ the identification code provision state 2 timing 242. As a result, the ID provider 250 does not temporarily hold the count value. In other words, the clock 210 of each of the controlled devices 22 to 2n carries out only count operation.

Please replace the second paragraph on page 21 with the following amended paragraph:

The delay unit 230 of the controlled device 21 delays the identification code provision state 2 timing 242 by the cycle of the count up timing 212 of the number obtained by subtracting 1 from the number of identification codes to be provided to the self device. The delay unit 230 of the controlled device 21 further delays the delayed identification code provision state 2 timing 242 by a half cycle of the count up timing 212 and generates ~~the identification code provision timing 231~~ the identification code provision timing output 231. The delay unit 230 of the controlled device 21 outputs the identification code provision timing 231 to the ID provider 250 of the controlled device 21 and to the controlled device 22. When ~~the identification code provision timing 231~~ the identification code provision timing output 231 is input, the ID provider 250 of the controlled device 21 holds the temporarily-held count value as an identification code.

Please replace the last paragraph on page 21 with the following amended paragraph:

In order to provide one identification code to the controlled device 21, for example, the delay unit 230 of the controlled device 21 delays the identification code provision state 2 timing 242 for the ID provider 250 of the controlled device 21 to temporarily hold the count value 211, by half cycle of the count up timing 212, thereby generating ~~the identification code provision timing 231~~ the identification code provision timing output 231. Therefore, after a half cycle of the count up timing 212 since the ID provider 250 of the controlled device 21 temporarily holds the count value 211, the identification code is provided to the controlled device 21, and the provision of an identification code to the controlled device 22 is also started.

Please replace the first full paragraph on page 22 with the following amended paragraph:

In order to provide two identification codes to the controlled device 21, for example, the delay unit 230 of the controlled device 21 delays the identification code provision state 2 timing 242 for the ID provider 250 of the controlled device 21 to temporarily hold the count value 211, by 1.5 cycles of the count up timing 212, thereby generating ~~the identification code provision timing 231~~ the identification code provision timing output 231. Therefore, after 1.5 cycles of the count up timing 212 since the ID provider 250 of the controlled device 21 temporarily holds the count value 211, the identification code is provided to the controlled device 21, and the provision of an identification code to the controlled device 22 is also started. The number of identification codes provided by each of the controlled devices 21 to 2n is preset before the identification code provision operation is started.

Please replace the second full paragraph on page 24 with the following amended paragraph:

The clock 110 of the controller 10 starts measuring time required to provide identification codes to the controlled devices 21 to 2n since the identification code provision start signal is input from the timing generator 120. After the time required to provide identification codes to the controlled devices 21 to 2n passes, the clock 110 outputs ~~an identification code provision end~~ the identification code provision end signal, indicating the lapse of the identification code provision time, to the timing generator 120 via the transmission route 111.

Please replace the last paragraph on page 25 bridging page 26 with the following amended paragraph:

When the identification code provision end signal is detected before ~~the second identification code provision start~~ the second identification code provision start signal is output to the latter-stage controlled device, the level detector 240 of each of the controlled devices 21 to 2n does not generate the identification code provision state 2 timing 242. Therefore, the ID provider 250 of each of the controlled devices 21 to 2n cannot temporarily hold the count value 211 of the self device, and does not provide the identification code to the self device accordingly.

Since the second identification code provision start signal to the latter-stage controlled device is a delayed signal of the identification code provision state 2 timing 242, the controlled device does not output the second identification code provision start signal to the latter-stage controlled device.

Please replace the third paragraph on page 27 with the following amended paragraph:

The delay circuit 232 configured by the flip-flops 232-1 to 232-m delays ~~the identification provision state 2 timing 242~~ the identification code provision state 2 timing 242 by the number of the count up timing 212 corresponding to the number of identification codes provided as the identification codes of the self device. The flip-flop ~~243~~ 233 further delays ~~the delayed identification provision state 2 timing 242~~ the delayed identification code provision state 2 timing 242 by a half cycle of the count up timing 212, and outputs ~~the identification code provision timing 231~~ the identification code provision timing output 231 to the register 252 and a latter-stage controlled device.

Please replace the fourth paragraph on page 27 with the following amended paragraph:

The register 252 holds the count value temporarily held in the flip-flop 251 at ~~the identification code provision timing 231~~ the identification code provision timing output 231. In other words, the register 252 holds a header identification code provided to the self device. Then, the register 252 provides the identification code of the self device based on the held header identification code.

Please replace the third paragraph on page 28 with the following amended paragraph:

Fig. 3 is an example of a timing chart of the controlled device 21 when the sequence controller provides identification codes "0" and "1" to the controlled device 21. Fig. 4 is an example of a timing chart of the controlled device 22 when the sequence controller ~~10~~ provides identification codes "0" and "1" to the controlled device 21 and provides an identification code "2" to the controlled device 22.

Please replace the last paragraph on page 29 bridging page 30 with the following amended paragraph:

The identification code provision state 1 timing 241 indicates by "L" the identification code provision period of the self device, that is, the period from when the one shot circuit 244 holds the start information and also obtains the second identification code provision start signal till when ~~the identification code provision end~~ the identification code provision end signal is obtained.

Please replace the third paragraph on page 34 with the following amended paragraph:

An internal circuit of the controlled device can have a time measuring unit. When the time measuring unit measures time and transmits ~~a second identification provision start timing~~ the second identification code provision start signal, the identification code can be provided without configuring a logic circuit.

Please delete the present Abstract of the Disclosure.

Please add the following new Abstract of the Disclosure:

A transmitter simultaneously notifies a start of providing identification codes to controlled devices using a first identification code provision start signal. A delay unit transmits a second identification code provision start signal to only the controlled device adjacent to a controller. After a level detector detects the first and the second identification code provision start signals, an ID provider provides identification codes to the controlled device. A delay unit sequentially transmits the second identification code provision start signal and an identification code provision end signal to the controlled device adjacently connected at a farther side from the controller than from the self device.